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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,495	12/14/2001	Cuic Zhao	3343/11046	5644
7590 02/09/2005			EXAMINER	
DARBY & DARBY P.C. 805 Third Avenue New York, NY 10022			TRUONG, LECHI	
			ART UNIT	PAPER NUMBER
			2126	

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/017,495

Applicant(s)

CUIE ZHAO

Examiner

LeChi Truong

Art Unit

2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-22 are presented for the examination.

Claim Rejections - 35 USC § 101

2. Claims 1 - 22 are rejected under 35 U.S.C. 101 because they are directed to non-statutory subject matter.

3. Claims 1 - 22 are directed to method steps, which can be practiced mentally in conjunction with pen and paper, therefore they are directed to non-statutory subject matter. Specifically, as claimed, it is uncertain what performs each of the claimed method steps. Moreover, each of the claimed steps, inter alia, providing, adjusting and computing can be practiced mentally in conjunctions with pen and paper. The claimed steps do not define a machine or computer implemented process (see MPEP 21061.

Therefore, the claimed invention is directed to non-statutory subject matter. (The examiner suggests applicant to change "method" to "computer implemented method" in the preamble to overcome the outstanding 35 U.S.C. 101 rejection).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ben-Shachar et al (US. Patent 6,209,018 B1).

5. As to claim 1, Ben-Shachar teaches the invention substantially as claimed including: a cluster (the set of service locator, col 19, ln 51-55/ the service locator object, col 21, ln 60-65), a context (an RDBMS service, col 5, ln 65-67), invoking a cluster (col 6, ln 3-5), performing a load balance to select an object server located in the invoked cluster (col 6, ln 12-17), a load balance (workload balancing, col 11, ln 12-18), a cluster component to invoked cluster to provide failover upon failure of the object server(col 3, ln 34-40/ col 21, ln 60-65/ col 28, ln 35-39 and ln 54-58), a selected object reference (the service object handles, col 6, ln 5-9/col 8, ln 63-67/ reservation context, col 26, ln 22-30), forwarding a selected object reference to a client upon completion of the loading balance (col 6, ln 5-9/col 8, ln 63-67/ col 11, ln 8-15), server(server 88, Fig. 3), the selected object reference which was forwarded to the client(col 5, ln 60-67 to col 6, ln 3-9/ col 8, ln 63-67), communicating with a server associated with the selected object reference(col 9, ln 30-34/ col 10, ln 39-42/ col 26, ln 23-30). Ben-Shachar does not explicit teach the term appending a cluster. However, Ben-Shachar teaches create a service locator clone (col 21, ln 5-60). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to apply the teaching of Ben-Shachar because Ben-Shachar's appending a cluster would perform another service locator instance when one service locator instance fails.

6. Claims 2, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ben-Shachar et al (US. Patent 6,209,018 B1) in view of JR (java Reflective Broker).

Art Unit: 2126

7. As to **claim 2**, Ben-Shachar does not teach port number, IP address. However, JR teaches port number, IP address (port number, IP address, page 3 of 16, ln 9-11/page 10 of 16, ln 20-21/page 6 of 16, ln 14-16).

8. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Ben-Shachar and JR because JR's port number, IP address would make a client to be able to invoke a method on a remote object.

9. As to **claim 9**, Ben-Shachar teaches a load balance algorithm upon creation of a naming service cluster to perform name service load balancing of object references contained within the clusters (col 11, ln 1-6 and ln 12-17).

10. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ben-Shachar et al (US. Patent 6,209,018 B1) in view of Arno (load balancing example).

11. As to **claims 10, 12, 13**, Ben-Shachar does not teach load balance based on predetermined method that is a Round robin. However, Arno teaches load balance based on predetermined method that is a Round robin (load balancing strategy like round robin, page 1, ln 27-28).

12. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Ben-Shachar and Arno because Arno's load balancing strategy like round robin would provide a good tool to increase the performance of load balancing.

Art Unit: 2126

13. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ben-Shachar et al (US. Patent 6,209,018 B1) in view of Geoffrey (The Gateway system: Uniform Web Based Access to Remote Resource).

14. **As to claim 14**, Ben-Shachar teaches each object server reference represents a single server (col 8, ln 66- 67 and col 9, ln 1).

15. Ben-Shachar does not teach an object binding table. However, Geoffrey teaches an object-binding table (a binding table, page 6, right col ln 12-13).

16. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Ben-Shachar and Geoffrey because Geoffrey's bind table would associate the event sources with actual event destinations.

17. Claims 15, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ben-Shachar et al (US. Patent 6,209,018 B1) in view of Rawson et al (US. Patent 5,675,795) and further in view of Nelson et al (US. Patent 5,452,447).

18. **As to claim 15**, Ben-Shachar teaches a cluster (the set of service locator, col 19, ln 51-55/ the service locator object, col 21, ln 60-65), a context (an RDBMS service, col 5, ln 65-67), invoking a cluster (col 6, ln 3-5), performing a load balance to select an object server located in the invoked cluster (col 6, ln 12-17), a load babance (workload balancing, col 11, ln 12-18), a cluster component to invoked cluster to provide failover upon failure of the object server (col 3, ln 34-40/ col 21, ln 60-65/ col 28, ln 35-39 and ln 54-58), a selected object reference (the service

Art Unit: 2126

object handles, col 6, ln 5-9/col 8, ln 63-67/ reservation context, col 26, ln 22-30), forwarding a selected object reference to a client upon completion of the loading balance (col 6, ln 5-9/col 8, ln 63-67/ col 11, ln 8-15), server(server 88, Fig. 3), forwarding a selected object reference to a client(col 5, ln 60-67 to col 6, ln 3-9/ col 8, ln 63-67), communicating with a server associated with the selected object reference(col 9, ln 30-34/ col 10, ln 39-42/ col 26, ln 23-30).

19. Ben-Shachar does not teach setting a flag to activate implicit clustering. However, Rawson teaches a flag to activate implicit clustering (name service –a flag indicating that the file is a name server, col 6, ln 22-25).

20. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Ben-Shachar and Rawson because Rawson's flag to activate implicit clustering would provide an improved data processing system.

21. Ben_shachar and Rawson do not teach flag in a file. However, Nelson teaches flag in a file (file flag, col 17, ln 25-26).

22. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Ben-Shachar, Rawson and Nelson because Nelson's file flag would gives results of caching operating.

23. As to claim 16, Nelson teaches a configuration file (col 14, ln 1-10).

24. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ben-Shachar et al (US. Patent 6,209,018 B1) in view of Rawson et al (US. Patent 5,675,795) in view of Nelson et al (US. Patent 5,452,447) and further in view of JR (java Reflective Broker).

Art Unit: 2126

25. As to claim 17, Ben-Shachar, Rawson and Nelson do not teach port number, IP address.

However, JR teaches port number, IP address (port number, IP address, page 3 of 16, ln 9-11/page 10 of 16, ln 20-21/ page 6 of 16, ln 14-16).

26. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Ben-Shachar, Rawson, Nelson and JR because JR's port number, IP address would make a client to be able to invoke a method on a remote object.

27. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ben-Shachar et al (US. Patent 6,209,018 B1) in view of Rawson et al (US. Patent 5,675,795) in view of Nelson et al (US. Patent 5,452,447) and further in view of Arno (load balancing example).

28. As to claims 18, 19, Ben-Shachar, Rawson and Nelson do not teach load balance based on predetermined method that is a Round robin. However, Arno teaches load balance based on predetermined method that is a Round robin (load balancing strategy like round robin, page 1, ln 27-28).

29. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Ben-Shachar, Rawson, Nelson and Arno because Arno's load balancing strategy like round robin would provide a good tool for increasing the performance of load balancing.

30. Claims 20, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ben-Shachar et al (US. Patent 6,209,018 B1) in view of Rawson et al (US. Patent 5,675,795) in view

Art Unit: 2126

of Nelson et al (US. Patent 5,452,447) and further in view of Nessett et al (US. Patent 5,742,759).

31. As to claim 20, Ben-Shachar, Rawson and Nelson do not teach object reference binding having identical names is clustered together. However, Nessett teaches object reference binding having identical names is clustered together (bind group identification to a target object, col 3, ln 15-17).

32. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Ben-Shachar, Rawson, Nelson and Nessett because Nessett's bind group identification to a target object would avoid the costly transaction costs of communicating with the server for the target object.

33. As to claim 21, Ben-Shachar teaches a loading balance algorithm to perform load balancing of object references (col 11, ln 12-16).

Allowable Subject Matter

34. Claims 3-8, 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (571) 272 3767. The examiner can normally be reached on 8 - 5.


Art Unit: 2126

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

LeChi Truong

February 4, 2005


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